BAY HARBOR LAKE STUDY
SHORELINE WATER QUALITY SURVEY SUMMARY

From May 9 through May 14, 2006, environmental consultants working on behalf of CMS Energy (CMS) and the U. S. Environmental Protection Agency (U.S. EPA) completed a portion of the Bay Harbor Lake study, which is being conducted pursuant to the Bay Harbor Lake Study Work Plan dated May 26, 2006. This work plan was developed through collaboration among Federal, State, Tribal, Local, and private entities to determine if cement kiln dust (CKD) or CKD leachate is present within Bay Harbor Lake. The consultants completed a shoreline water quality survey by collecting water quality measurements around the entire perimeter of Bay Harbor Lake.

The preliminary results from this portion of the lake investigation show no evidence of CKD or CKD leachate in the near shore water of Bay Harbor Lake. All the water quality measurements indicate normal conditions. The results will be finalized upon completion of a thorough review by the assessment team.

Since CKD leachate is highly alkaline and contains elevated concentrations of dissolved solids, measurements of pH (a measurement of the hydrogen ion (H+) concentration ranging from 0 to 14 standard units (s.u.), with a value of 7 s.u. being neutral, values below 7 s.u. being acidic, and values above 7 s.u. being alkaline), conductivity (a measurement of how well water can conduct an electrical current, which is an indirect measurement of the presence of dissolved solids), and temperature were collected along the shoreline of Bay Harbor Lake. Michigan surface water quality standards require surface water pH to be between 6.5 to 9.0 s.u. for human total body contact use and for the protection of aquatic organisms.

A total of 447 water quality measurements were collected from 407 lakeshore locations. These locations were spread across the approximately 2 miles of shoreline in 25-foot increments. At each location, water quality monitoring measurements were collected from the shoreline, in water depths between 2 and 18 inches. For areas that were inaccessible from land, water quality monitoring measurements were collected using a boat in water as deep as 14 feet. The pH values measured within Bay Harbor Lake during the shoreline survey ranged from 7.77 to 8.32 s.u., with a median value of 8.12 s.u.

In addition, water quality monitoring was conducted at eight storm water drains discharging into Bay Harbor Lake. The pH values measured in these storm water drains ranged from 7.65 to 8.14 s.u.

Additional portions of the Bay Harbor Lake Study are scheduled to take place this year. In early June, U.S EPA divers will conduct an underwater survey to evaluate the deeper portions of Bay Harbor Lake. Once all study activities have been completed, a comprehensive report will be prepared describing all portions of the study as well as recommendations/conclusions. Questions regarding the Bay Harbor Lake Survey should

be directed to U.S. EPA On-Scene Coordinator (OSC) Ralph Dollhopf. OSC Dollhopf can be reached by email at Ralph.dollhopf @epa.gov or by telephone at 231-301-0559.